

9. (Amended) Method to determine whether at least one bacteria belonging to the order of *Spirochaetales* is present in a sample containing or likely to contain nucleic acids from at least one such bacteria, characterised in that the said sample is put into contact with at least one probe according to claim 6, then to determine whether a hybridisation complex is formed between the probe and the nucleic acid in the sample.

10. (Amended) Nucleotide primer that can be used for the synthesis in the presence of a polymerase, and the total or partial sequencing of gene *rpoB* in any one of the species of bacteria belonging to the order of *Spirochaetales*, characterised in that it includes an oligonucleotide according to claim 1.

11. (Amended) Method according to claim 9, characterised in that a fragment of gene *rpoB* of the said bacteria is amplified with at least one primer that can be used for the synthesis in the presence of a polymerase, and the total or partial sequencing of gene *rpoB* in any one of the species of bacteria belonging to the order of *Spirochaetales*, and thereafter said fragment is put into contact with the probe of the said bacteria, and whether a hybridisation complex is formed between the said probe and the said fragment is determined.

15. (Amended) Gene therapy probe, characterised in that it includes an oligonucleotide according to claim 1.